

REMARKS/ARGUMENTS

The Examiner is thanked for the careful review of the application as set out in the outstanding office action. Reconsideration of the application is respectfully requested.

Claims 20, 27, 55 and 63 stand rejected under 35 USC 103 as being unpatentable over Mogab et al. ("Mogab") in view of Homan and Henson. Claims 21, 22, 23, 28, 56, 57, 58, 64, 65 and 66 are apparently rejected on the same grounds, although this is not stated explicitly in the office action. For purposes of this response, it is assumed that Claims 21, 22, 23, 28, 56, 57, 58, 64, 65 and 66 also stand rejected under Section 103 on the same grounds as Claims 20, 27, 55 and 63.

Claims 59 and 62 stand rejected under 35 USC 103 as being unpatentable over Lively in view of Mogab and Henson.

Claims 60 and 61 stand rejected under 35 USC 103 as being unpatentable over Lively in view of Mogab, Henson and Homan.

The foregoing rejections are respectfully traversed on the grounds that a prima facie case of obviousness has not been established, and the applied references do not teach or suggest the claimed invention.

Claim 54 stands rejected under 35 USC 103 as being unpatentable over Henson in view of Homan. This ground of rejection is mooted by the cancellation of Claim 54 without prejudice or disclaimer.

Claims 20, 27, 55, 63

Each of these independent claims stands rejected as being unpatentable over Mogab in view of Homan and Henson.

The Examiner noted at page 3 of the action, regarding Claims 20 and 55, that the recitation "in a pool or spa installation" had not been given patentable weight because the recitation occurs in the preamble. Claims 20 and 55 have been amended to recite, for Claim 20, that the water supply line is "for the pool water holding structure of the spa or swimming installation," and for Claim 55, "manually entering a water fill command for the spa or swimming pool installation through an electronic control panel

connected to an electronic control system to actuate a water supply valve connected to a water supply line for the water holding structure." Thus, the recitation of the "spa or swimming pool installation" in Claims 20 and 55 should be given patentable weight.

The Examiner further noted, regarding Claim 27, that the recitation "for controlling operation of a pool service including a water heater, a water filter, and for providing a semi-automated water fill capability" had not been given patentable weight because the recitation occurs in the preamble. Claim 27 now recites that the electronic controller system is "for coupling to the water heater and a recirculation pump for controlling operation of the water heater and the recirculation pump and recirculation of water through the water filter and the water heater ...". With the foregoing amendments to Claim 27, these features should be given patentable weight.

The Examiner noted, regarding Claim 63, that the recitation "for providing a semi-automated water fill capacity to replenish water in the pool or spa" had not been given patentable weight because the recitation occurs in the preamble. With the foregoing amendments to Claim 63, this feature should be given patentable weight.

The Examiner alleges at page 3 that Mogab teaches the claimed invention except for providing an electronic control system responsive to a user commands through a control panel to generate the valve control signals, entering a user command through the control panel to actuate the control signal; and opening the valve in response to the user command, and that these features are taught by Homan. Applicants respectfully disagree with these allegations. For example, with respect to Claim 20, not only does Mogab not disclose the features listed by the Examiner, but Mogab does not describe or suggest "automatically closing the valve after a predetermined time has elapsed."

Mogab describes a system for sensing a low water condition and causing a pool fill valve to be automatically opened when a low threshold is reached. The valve is automatically closed when the water level reaches a specified threshold.

Homan describes a bath water control system, in which the bath water is selectively supplied a bath or shower outlets, and the water supply is as to both temperature and period of supply. These parameters may be prestored in a memory

along with discrete start times whereby a programmed bath will be automatically available at a discrete time or times in the future.

The Examiner alleges that one would have been motivated to modify Mogab to incorporate the teachings of Homan for the purpose of enabling a user to increment or decrement the value of a preselected water temperature while the water is being drawn. Applicants respectfully disagree with this line of reasoning. Mogab describes an automatic water regulator apparatus for filling a swimming pool when the water level is low; there is no provision for filling the pool with heated water. Thus, the alleged motivation to modify Mogab with teachings of Homan is not convincing. The modification suggested by the Examiner is the product of improper hindsight reconstruction, using applicants' disclosure as a blueprint, and not the teachings of the prior art.

The Examiner alleges that the feature of "automatically closing the valve after a predetermined time has elapsed" is taught by Henson (4:11-18). Henson describes an apparatus for controlling water level, which includes a probe 16 for sensing water level. When the water has been out of contact with the probe for some time, the valve 33 is opened to release water into the reservoir. The valve is closed after an elapsed time set by dial 38. Thus, the valve is not opened in response to a user command entered through the control panel to actuate the valve. Instead the apparatus employs a probe which adds to the expense and complexity of the system, and is subject to failure conditions caused by corrosion, or other environmental exposure. The systems described by Henson and Mogab are subject to these disadvantages.

Similar considerations apply to Claims 27, 55 and 63. Claim 27 is further distinguished by the feature that the electronic control system controls operation of the water heater and a recirculation pump for recirculating water through the water filter and the water heater.

Claims 21, 56

These claims are apparently rejected on the same grounds as Claims 20 and 55. The Examiner asserts that the feature of setting the predetermined time during a programming mode is taught or fairly suggested by Homan, and that one would

have been motivated to modify Mogab to incorporate the teachings of Homan for the purpose of providing a convenient mixing device that quickly and efficiently performs precise adjustments to achieve and maintain a constant temperature output and on a preprogrammed basis. Applicants respectfully disagree. Mogab describes an automatic water regulator apparatus for filling a swimming pool when the water level is low; there is no provision or need for filling the pool with heated water using the water supply line. Indeed this would not appear to be a practical way to achieve a constant temperature in a swimming pool. The volume of water existing in the pool would be much greater than the amount added during the replenishment process, and so the temperature of the replenishment water would not have a great impact on the pool temperature. Thus, the alleged motivation to modify Mogab with teachings of Homan is not convincing. The modification suggested by the Examiner is the product of improper hindsight reconstruction, using applicants' disclosure as a blueprint, and not the teachings of the prior art.

Claims 22, 57 and 65

~~These claims are apparently rejected on the same grounds as Claims 20, 55 and 63.~~ The Examiner asserts that the feature of storing in an electronic memory a time value corresponding to the predetermined time interval is taught or fairly suggested by Homan. The same motivation to modify/combine is alleged in support of the modification as supporting the rejection of Claims 21 and 56. Applicants respectfully traverse this motivation for the same reasons as just discussed above for these claims.

Claims 23 and 58

The Examiner asserts that the feature of automatically closing the valve if the water reaches an overfill level is taught by Mogab. It is the overall combination of elements which must be taught or suggested by the prior art. Mogab does not disclose or teach a method as recited in Claims 23 and 58, respectively, which includes all features of the corresponding independent Claim 20 and 55.

Claims 28, 64, 66

These claims apparently stand rejected on the same grounds as Claims 27 and 63 respectively. The Examiner asserts that the features of these dependent claims are taught or fairly suggested by Homan. This ground of rejection should be withdrawn for reasons similar to those discussed above regarding Claims 27 and 63.

Claims 59 and 62

These claims stand rejected as being unpatentable over Lively in view of Mogab and Henson. This ground of rejection is respectfully traversed.

The Examiner asserts that Lively teaches a method for replenishing water in the water holding structure comprising "in response to a user identification of a low water condition in the water holding structure (e.g. abstract; 1:23-29; 33-36; 8:43-55)." Applicants respectfully disagree with this holding. None of the cited passages disclose or fairly suggest the quoted teaching. The passage at 8:43-55 merely states that "various manual overrides and additional exterior switching can be provided to allow manual operation of a pool system separate and apart from that provided by the automatic control system." This manual operation of a pool system does not teach or suggest the features of these claims.

Lively describes a system for automatically maintaining a predetermined water level in a swimming pool, using water level sensors. The Examiner argues that it would have been obvious to modify Lively with features of Mogab and Henson to arrive at the claimed invention. Applicants respectfully disagree. None of the applied references teaches "in response to a user identification user of a low water condition in the water holding structure, electronically actuating a water supply valve connected to a water supply line to release water into the water holding structure of the spa or swimming pool installation" as recited in Claim 59. Further the references do not teach or suggest the claimed invention as a whole.

Similar considerations apply to Claim 63. The rejection of these claims should be withdrawn, since improper hindsight reconstruction has been employed to construct the rejection.

Claim 62 depends from Claim 59, and is also in condition for allowance for reasons discussed above regarding Claim 59.

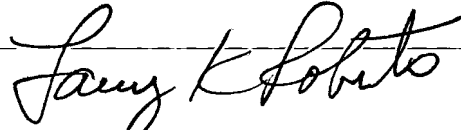
Claims 60, 61

These claims stand rejected as being unpatentable over Lively in view of Mogab, Henson and Homan. This ground of rejection is respectfully traversed for reasons discussed above regarding Claim 59. Moreover, the rational to modify to include features of Homan is not convincing, since the water fill operations of Lively and Mogab do not involve heated water.

CONCLUSION

The outstanding rejections have been addressed, and the application is in condition for allowance. Such favorable reconsideration is solicited.

Respectfully submitted,



Larry K. Roberts
Registration No. 28,464

Dated: 9/12/03

Law Offices of Larry K. Roberts, Inc.
P.O. Box 8569
Newport Beach, CA 92658-8569
Telephone (949) 640-6200
Facsimile (949) 640-1206